

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Marc A. Boillot

Confirmation No. 7406

Application No.: 10/607,760

Examiner: Wozniak, James S.

Date Filed: June 27, 2003

Group:2626

For: **PSYCHOACOUSTIC METHOD AND SYSTEM TO IMPOSE A
PREFERRED TALKING RATE THROUGH AUDITORY FEEDBACK
RATE ADJUSTMENT**

**AMENDED BRIEF ON APPEAL UNDER 37 C.F.R. § 1.192 in response to Notification of
Non-Compliant Appeal Brief**

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Arlington, VA 22313-1450

Sir:

This Appeal Brief is being filed together with an authorization for fees in the amount of \$540.00 for filing an appeal brief pursuant to 37 C.F.R. § 1.192. The fee for appeal was timely filed with the Notice of Appeal on October 28, 2008 with a Pre-Appeal Brief Request for Review. A Notice of Panel Decision from Pre-Appeal Brief Review was issued February 18, 2009. The Appeal Brief is being submitted with a 3 Month Extension of Time. If, however, the fees paid are deemed to be insufficient, authorization is hereby given to charge any deficiency to the undersigned's Deposit Account No. 50-0951.

REAL PARTY IN INTEREST

The real party in interest in this application is the assignee, Motorola, Inc. of Schaumburg, Illinois.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences known to the Appellant.

STATUS OF CLAIMS

Claims 1-22 all stand rejected, Claims 1-22 are being appealed herein and are pending in the application, the latest version of which can be found in Applicants' Response of February 26, 2008 and the Claims Appendix herein. In the Office Action of May 27, 2008, claims 17-22 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. In addition, claims 1-16 were rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements. Claims 1-4, 7, 10-13 and 17-20 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2004/0179676 to Okuda, et al. (Okuda) in view of U.S. Patent No. 5,717,818 to Nejime, et al. (Nejime). In addition, claims 6 and 22 were rejected under 35 U.S.C. 103(a) as being unpatentable over Okuda in view of Nejime and further in view of U.S. Patent No. 6,278,387 to Rayskiy (Rayskiy). Finally, claims 5, 8, 9, 14-16 and 21 were rejected under 35 U.S.C. 103(a) as being unpatentable over Okuda in view of Nejime and further in view of U.S. Patent No. 5,717,823 to Klejin (Klejin).

STATUS OF AMENDMENTS

An Amendment was filed along with an RCE Application on February 26, 2008 in response to a Final Rejection dated September 16, 2007. A Non-Final Office Action was subsequently sent on May 27, 2008 and a Notice of Appeal and Pre-Appeal Brief Review was filed on October 28, 2008 in response. Claims 1-22 remain in the Application as found in the Amendment of February 26, 2008.

SUMMARY OF THE CLAIMED SUBJECT MATTER

The Appellant's embodiments of the invention concerns a method and apparatus for involving a telephone handset comprising an audio input module for receiving audio from a user, an audio output module for rendering audio to the user, and an audio loopback path to present audio from the audio input module to the audio output module so as to be heard by the user during a call between the user and another party. The audio loopback path presents audio at a loopback rate depending upon a selectable rate variable selected by the other party to impose an altered talking rate on the user speaking at the undesired speaking rate. See Page 3, lines 1-13 of Applicant's Specification.

Independent claim 1 recites the limitation of a telephone handset (**See 2002 of FIG. 20 of User A**) that includes an audio input module (**124 of FIG. 1**) that receives audio from a user speaking at an undesired speaking rate, an audio output module (**130 of FIG. 1**) that renders audio to the user and an audio loopback path (**2012 of FIG. 20**) that presents audio at a loopback rate based on a selectable rate variable selected by another party (**User B at 2004**) to impose an altered talking rate on the user speaking at the undesired speaking rate. Independent claims 10 and 17 recite similar subject matter. Please refer generally to **page 24, Line 17 through page 26, line 20** of Applicant's specification.

Independent Claim 10 recites a communication system for adjusting audio rate in a handset including a first handset (See 2002 of FIG. 20 of User A) for use by a first user, a second handset for use by a second user (User B at 2004) where audio captured from the first user at the first handset is presented to the second user at the second handset through a communication infrastructure (2030 of FIG. 20). The audio captured from the first user at the first handset is also presented to the first user through a loopback path (2012) to an earpiece in the first handset during a call between the first handset and the second handset. The loopback path includes a loopback rate for speech audio through a selectable rate variable selected by the second user to impose an altered talking rate on the first user when the first user is speaking at an undesired speaking rate.

Independent Claim 17 recites a program storage device tangibly embodying a set of programming instructions for executing on a communication unit (2002) for causing the communication unit to perform the steps of capturing speech audio from the user of the communication unit in a loopback path between an audio input module (124) and an audio output module (130) during a call between a user of the communication unit and another party where the loopback path (2012) presents speech audio received at the audio input

module to the audio output module for the user of the communication unit to hear. When the user of the communication unit is speaking at an undesired speaking rate, the speech audio from the user communication unit captured in the loopback path is adjusted based upon a selectable rate variable selected by the other party to impose an adjusted speaking rate on the user of the communication unit.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

1. Whether claims 17-22 fail to comply with the written description requirement under 35 U.S.C. 112, first paragraph.
2. Whether claims 1-16 are considered incomplete for omitting essential elements under 35 U.S.C. 112, second paragraph.
3. Whether Claims 1-4, 7, 10-13 and 17-20 are unpatentable under 35 U.S.C. 103(a) over U.S. Patent Application Publication No. 2004/0179676 to Okuda, et al. (Okuda) in view of U.S. Patent No. 5,717,818 to Nejime, et al. (Nejime).
4. Whether Claims 6 and 22 are unpatentable under 35 U.S.C. 103(a) over Okuda in view of Nejime and further in view of U.S. Patent No. 6,278,387 to Rayskiy (Rayskiy).
5. Whether claims 5, 8, 9, 14-16 and 21 are unpatentable under 35 U.S.C. 103(a) over Okuda in view of Nejime and further in view of U.S. Patent No. 5,717,823 to Klejin (Klejin).

The claims are grouped as follows:

- Group 1 – claims 1-9; and
- Group 2 – claims 10-16; and
- Group 3 – claims 17-22.

These groups of independent and dependent claims are believed to be separately patentable for the reasons set forth in the argument section of this brief, and do not necessarily stand or fall together.

A. Group 1: Claims 1-9

Appellant's claims 1-9 recite a telephone handset comprising an audio input module for receiving audio from a user, an audio output module for rendering audio to the user, and

an audio loopback path to present audio from the audio input module to the audio output module so as to be heard by the user during a call between the user and another party. The audio loopback path presents audio at a loopback rate depending upon a selectable rate variable selected by the other party to impose an altered talking rate on the user speaking at the undesired speaking rate.

B. Group 2: Claims 10-16

In a variant embodiment, Appellant's claims 10-16 recite a communication system for adjusting audio rate in a handset comprising a first handset for use by a first user and a second handset for use by a second user where audio captured from the first user at the first handset is presented to the second user at the second handset through a communication infrastructure. The audio captured from the first user at the first handset is also presented to the first user through a loopback path to an earpiece in the first handset during a call between the first handset and the second handset and the loopback path includes a loopback rate for speech audio through a selectable rate variable selected by the second user to impose an altered talking rate on the first user when the first user is speaking at an undesired speaking rate.

C. Group 3: Claims 17-22

Appellant's claims 17-22 recite a program storage device tangibly embodying a set of programming instructions for executing on a communication unit for causing the communication unit to perform the steps of capturing speech audio from the user of the communication unit in a loopback path between an audio input module and an audio output module during a call between a user of the communication unit and another party where the loopback path presents speech audio received at the audio input module to the audio output module for the user of the communication unit to hear, and adjusting the speech audio from the user communication unit captured in the loopback path based upon a selectable rate variable selected by the other party to impose an adjusted speaking rate on the user of the communication unit when the user of the communication unit is speaking at an undesired speaking rate.

ARGUMENT

I. Summary

The Applicants respectfully disagree with Examiner's rejection of Claims 17-22 and Claims 1-16 under 35 U.S.C. 112. With respect to Claims 17-22, one of skill in the art would certainly appreciate that a program must be written to some sort of storage unit to allow for execution in a computer system that contains such a storage unit. The term "tangibly embodied" is a simple, well-known and well-accepted phrase that is used in these types of claims to recite the process of moving executable code to a storage unit, and there is clear support for it in this specification. With respect to Claims 1-16 no essential matter is omitted with respect to these claims because the control for selecting the rate is located at the communication device operated by the other party.

Claims 1-22 were found unpatentable by the Examiner under 35 U.S.C. 103(a) in view of a combination of references including Okuda. Okuda provides a scheme that prevents the rate of the calling party's voice from being altered, which contradicts the desired result of the claimed invention, namely an imposition on the calling party to cause that party to change his/her speaking rate. As such Okuda fails to teach or suggest the claimed embodiments and instead teaches away from the claimed embodiments.

II. 35 U.S.C. 112, First Paragraph and Claims 17-22

Claims 17-22 recite a program storage device tangibly embodying a set of programming instructions for executing on a communication unit. Applicants respectfully disagree with the Examiner's assertion that an issue of new matter should be raised in response to the terms "program storage device" and "tangibly embodied." These terms are well known in the art of computer programming, and the specification clearly conveys to one of skill in this art that Applicants were in possession of such claimed subject matter. In particular, the specification notes that a program is for execution on a computer system (see page 8, lines 8-10). One of skill in the art would certainly appreciate that a program must be written to some sort of storage unit to allow for execution in a computer system that contains such a storage unit. The term "tangibly embodied" is a simple, well-known and well-accepted phrase that is used in these types of claims to recite the process of moving executable code to a storage unit, and there is clear support for it in this specification.

Moreover, the specification states that a program may be stored on a computer readable medium *or other storage medium* (see page 8, lines 14-16). One of skill in the art

would appreciate that a program storage device, a term that is well-known and accepted in the art, falls within the scope of a storage medium. Thus, Applicants submit that the specification provides support for this term and respectfully request withdrawal of the 112 rejection.

III. 35 U.S.C. 112, Second Paragraph and Claims 1-16

In this 112, second paragraph, rejection, the Examiner refers to MPEP 2172.01 for support. In that section, it is clearly stated that a claim that omits matter disclosed to be essential to the invention as described in the specification may be rejected under 35 U.S.C. 112, *first* paragraph, as not enabling. Even ignoring the reference to the wrong paragraph, this rejection cannot stand. Claim 1 is directed to a telephone handset of a calling party in which an audio loopback path on the handset of the calling party plays audio at a loopback rate to the calling party to impose an altered talking rate on the calling party in which the loopback rate is selected by another party. Because the rate is selected by another party to the call, no essential matter is omitted here because the control for selecting this rate is located at the communication device operated by the other party. This claim does not attempt to claim this second communication device. Moreover, even though independent claim 10 does claim two separate handsets, the specification of the current invention does not describe any particular structure of controlling this rate variable as being critical.

IV. Rejections based on 35 U.S.C. 103(a) and deficiencies of Cited References

The Examiner found Claims 1-4, 7, 10-13 and 17-20 as unpatentable under 35 U.S.C. 103(a) over Okuda in view of Nejime and found Claims 6 and 22 as unpatentable under 35 U.S.C. 103(a) over Okuda in view of Nejime and further in view Rayskiy. The Examiner also found claims 5, 8, 9, 14-16 and 21 as unpatentable under 35 U.S.C. 103(a) over Okuda in view of Nejime and further in view of Klejin.

Independent claim 1 recites the limitation of a telephone handset (See 2002 of FIG. 20 of User A) that includes an audio input module (124) that receives audio from a user speaking at an undesired speaking rate, an audio output module (130) that renders audio to the user and an audio loopback path (2012) that presents audio at a loopback rate based on a selectable rate variable selected by another party (User B at 2004) to impose an altered talking rate on the user speaking at the undesired speaking rate. Independent

claims 10 and 17 recite similar subject matter. Please refer generally to page 24, Line 17 through page 26, line 20 of Applicant's specification.

In rejecting these claims, the Examiner concludes that Okuda describes an audio loopback path that presents audio at a loopback rate based on a selectable rate variable to a user speaking at an undesired rate to impose an altered talking rate on the user speaking at the undesired speaking rate. Applicants respectfully disagree with the Examiner. Okuda actually explains that the telephone set includes an echo canceller **6** that is provided in the preceding stage of a voice speed converting unit **5** "to prevent the voice of the *calling party* which has been inputted from the microphone **1** *from being subjected to voice speed conversion and outputted from the loudspeaker 2.*" (emphasis added) (see paragraph 0043 of Okuda). As such, it is clear that Okuda provides a scheme that prevents the rate of the calling party's voice from being altered, which contradicts the desired result of the claimed embodiments, namely, an imposition on the calling party to cause that party to change his/her speaking rate. Further, this structure in Okuda not only fails to teach or suggest the claimed embodiments, but teaches away from incorporating any concepts from other references that call for altering a calling party's voice that is fed back to the calling party through a speaker output. Note that Nejime, Rayskiy, and Klejin also fail to teach or suggest an imposition on the calling party to cause that party to change his/her speaking rate and thus any of these references alone or in combination with Okuda would necessarily fail to obviate claims 1-22 as currently recited.

CONCLUSION

In view of the above, Applicants contend that the claims are patentable over the cited prior art references. Reconsideration and withdrawal of the rejection of the claims is respectfully requested. It is thus submitted that claims 1-22 define a patentably distinguishable and nonobvious invention over the prior art made of record, and a Notice of Allowance for claims 1-22 is accordingly and courteously solicited.

Respectfully submitted,

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CLAIMS APPENDIX (37 C.F.R. § 41.37(c)(1)(viii))

What is claimed is:

1. (Currently Amended) A telephone handset for use in a communications infrastructure, the telephone handset comprising:

an audio input module for receiving audio from a user;
an audio output module for rendering audio to the user;
an audio loopback path to present audio from the audio input module to the audio output module so as to be heard by the user during a call between the user and another party; and

wherein the audio loopback path presents audio at a loopback rate depending upon a selectable rate variable selected by the other party to impose an altered talking rate on the user speaking at the undesired speaking rate.

2. (Previously Presented) The telephone handset of claim 1, wherein the audio input module receives speech audio from the user at a given speaking rate and wherein the loopback rate alters the speaking rate in the audio loopback path.

3. (Original) The telephone handset of claim 2, wherein the speaking rate in the audio loopback path maintains a pitch of the speech audio received in the audio input module.

4. (Original) The telephone handset of claim 3, further comprising: a user interface for selectively adjusting the selectable rate variable.

5. (Original) The telephone handset of claim 3, further comprising: a receiver for receiving, from a second telephone handset, audio and a rate variable set from a second audio handset.

6. (Original) The telephone handset of claim 3, wherein the audio loopback path presents audio at a loopback rate through a SOLA (Synchronized OverLap and Add) function.

7. (Original) The telephone handset of claim 3, further comprising: a memory location to store a rate variable for a given user.

8. (Previously Presented) The telephone handset of claim 3, wherein the audio output module further comprises a vocoder for detecting a word rate in the audio loopback path using:

- an energy decision metric;
- a voicing decision metric; or
- a tonality measure.

9. (Original) The telephone handset of claim 8, further comprising: a memory location to store a rate variable and the word rate for a given user.

10. (Currently Amended) A communication system for adjusting audio rate in a handset comprising:

- a first handset for use by a first user;

- a second handset for use by a second user, wherein audio captured from the first user at the first handset is presented to the second user at the second handset through a communication infrastructure;

- wherein the audio captured from the first user at the first handset is also presented to the first user through a loopback path to an earpiece in the first handset during a call between the first handset and the second handset; and

- wherein the loopback path includes a loopback rate for speech audio through a selectable rate variable selected by the second user to impose an altered talking rate on the first user when the first user is speaking at an undesired speaking rate.

11. (Original) The communication system of claim 10, wherein the first handset includes a user interface for adjusting the selectable rate variable of the first handset.

12. (Original) The communication system of claim 11, wherein the first handset includes a memory location for storing the selectable rate variable for association with the second handset.

13. (Original) The communication system of claim 10, wherein the second handset includes a memory location for storing the selectable rate variable for association with the first handset.

14. (Original) The communication system of claim 10, wherein the second handset includes a user interface for adjusting the selectable rate variable of the first handset.

15. (Previously Presented) The communication system of claim 10, wherein the first handset includes a vocoder for detecting a word rate detection in the loopback path using
an energy decision metric;
a voicing decision metric; or
a tonality measure.

16. (Original) The communication system of claim 15, wherein the first handset includes a memory location for storing the selectable rate variable and the word rate for association with the second handset.

17. (Currently Amended) A program storage device tangibly embodying a set of programming instructions for executing on a communication unit for causing the communication unit to perform the steps of:

during a call between a user of the communication unit and another party, capturing speech audio from the user of the communication unit in a loopback path between an audio input module and an audio output module, wherein the loopback path presents speech audio received at the audio input module to the audio output module for the user of the communication unit to hear; and

when the user of the communication unit is speaking at an undesired speaking rate, adjusting the speech audio from the user communication unit captured in the loopback path based upon a ~~selectable~~ selectable rate variable selected by the other party to impose an adjusted speaking rate on the user of the communication unit.

18. (Previously Presented) The program storage device of claim 17, wherein capturing speech audio includes capturing the speech audio at a given speaking rate and wherein adjusting the speech audio captures includes adjusting the speaking rate in the loopback path.

19. (Previously Presented) The program storage device of claim 17, adjusting the speech audio captured includes maintaining the pitch of the speech audio.

20. (Previously Presented) The program storage device of claim 17, wherein adjusting the speech audio captured includes receiving from a user interface an adjustment to the selectable rate variable.

21. (Previously Presented) The program storage device of claim 17, wherein adjusting the speech audio captured includes receiving from a user interface from a second handset adjustment to the selectable rate variable.

22. (Previously Presented) The program storage device of claim 17, wherein adjusting the speech audio captured includes adjusting the speech rate through a SOLA (Synchronized OverLap and Add) function.

RELATED PROCEEDINGS APPENDIX (37 C.F.R. § 41.37(c)(1)(x))

None.